ADVISORY: 4029	SOFTWARE SUPPORT	DATE: 05/21/81

TITLE: Availability of 'GEN' TSO command processor

Purpose

To announce and document the availability of the 'GEN' TSO command processor.

Definitions

(1) CLIST - Command Procedure (these terms are interchangeable)
(2) GDG - Generation Data Group
(3) TSO - Time Sharing Option

General Description

The 'GEN' TSO command processor is now available to all TSO users. It provides the ability to obtain any absolute generation dataset name through submittal of the GDG name and relative generation number.

The command may be executed explicitly from the terminal or implicitly within a command procedure.

If executed from the terminal, multiple datasets and/or generations may be requested. This is accomplished by entering the datasets with relative generation enclosed within one set of parentheses. Multiple datasets/generations may not be executed from a command procedure.

Due to certain processing constraints, a '+' or '-' may not be used to indicate positive or negative generations. To accommodate this situation, the user must replace the '+' with a 'P' for current and future generations, and '-' with 'M' for older generations. An example follows:

```
 GEN X076.K612(PO)

 GEN (X076.K612(PO) X076.A144(M10))
```

To execute GEN from a command procedure, code an 'RC' after the dataset name (see example below). It will return the absolute generation number (if found), or a return code from the 'LOCATE' MACRO (if an error has occurred) in register 15. The register is accessible to the CLIST

through the control variable '&LASTCC'. Because the return code would be indistinguishable from a valid generation number (0-9999), the value 10000 will have been added to the return code value and must be subtracted from &LASTCC in order to obtain the actual return code. (Because &LASTCC is updated after each instruction executed within a CLIST, the user must set an additional symbolic variable = &LASTCC immediately upon return from GEN in order to be able to access that value.)

A coding example to illustrate this, plus code which will convert the absolute generation number to 4 digits, has been provided below:

```
GEN &GDGNAME RC
SET &GDGNO = &LASTCC
IF &GDGNO  9999 THEN DO
  SET &ERR = &EVAL(&GDGNO - 10000)
  GO TO ERRTN
  END
ELSE DO
  SET &GDGLN = &LENGTH(&GDGNO)
  SET &GDGNO = &SUBSTR(&GDGLN:&GDGLN+3,000&GDGNO)
  '
  '
  '
  (CONTINUE PROCESSING)
  (CONTINUE PROCESSING)
```

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